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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/516,916

12/06/2004

Axel Thiess

1703 1326US

7444

29894 7590 09/27/2007  
DREISS, FUHLENDORF, STEIMLE & BECKER  
POSTFACH 10 37 62  
D-70032 STUTTGART,  
GERMANY

EXAMINER

AHMED, SHEEBA

ART UNIT

PAPER NUMBER

1773

MAIL DATE

DELIVERY MODE

09/27/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/516,916	THIESS ET AL.	
	Examiner	Art Unit	
	Sheeba Ahmed	1773	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 July 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 19-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Amendments*

1. Amendments to claims 19, 21, 22, 24-26, 42, and 43 have been entered in the above-identified application. Claims 1-18 are canceled. **Claims 19-45 are pending.**

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 19-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what is meant by "a hardened polymer preparation which is flowable in a processing state". Is the polymer cured or hardened but was flowable beforehand?

In claims 24, 25, and are 26, it is unclear what the percentages are based, and if the total components of the composition must add up to 100%. It is also unclear if the % set forth for the PVC is emulsion (including water) or polymer. Furthermore, it is unclear what is meant by "hardened liquid caoutchouc".

Appropriate correction or clarification is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 19, 20, 23, 27, 28, 29-31-35, 37, 38, 40, 41, 42, 43, 44, and 45 are rejected under 35 U.S.C. 102(e) as being anticipated by Lagace (6,153,666).

Lagace teaches mixtures of plastisol (PVC), metallic tin and barium carbonate (example 1), this composition has a weight savings over Lead foil. These compositions may comprise plasticizers (column 2, lines 40+). The composition is cast on a support and thus meets the claimed two-layer structure. Regarding claims 30-34, the applicants have set forth a test method for measuring the properties of the structure, given the amount of fillers present, it is the examiners position that the coating would have the claimed properties. The two -layer structure could be washed as claim set forth in claim 41. It is integrally connected to the composition (as long as it is present) claim 42. The process of coating 43-44 is the simple process of casting the composition on a support. The filler content results in materials having the claimed properties.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 19-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lagace (6,153,666).

The general properties of Lagace are set forth above; it would have been obvious to one having ordinary skill in the art to have varied the amounts and types of fillers present depending on the desired degree of barrier properties with respect to radiation as well as the thickness of the structure. The examiner notes that increased amounts of fillers will increase the weight of the structure, but will increase the barrier properties too. The composition may comprise a variety of polymers (column 2, lines 20+). The properties of each of these polymers are well understood in the art. It would have been obvious to one having ordinary skill in the art, in the absence of unexpected results, to have mixed PVC and a "caoutchouc" (e.g. thermosetting polyurethane, natural rubber, etc...) when those properties were desired in the final composition, this would be a minor component and the effect of this would be directly related to the amount used. Natural rubber would add rubber properties to the PVC.

#### ***Response to Arguments***

5. Applicant's arguments filed on July 12, 007 have been fully considered but they are not persuasive. Applicants traverse the rejection of claims 19-42 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention and state that the amended claims now specify that the radiation absorbing layer comprises a

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hardened liquid caoutchouc component and that this change, in combination with the recitations of claims 24, 25 and 26 specifying that the rest of the composition comprises softener, clearly define the percentages being claimed, with all percentages adding up to one hundred percent. The Examiner disagrees. It is still unclear if the % set forth for the PVC includes water or not.

The Applicants further traverse the rejection of claims 19, 20, 23, 27, 28, 29-31-35, 37, 38, 40, 41, 42, 43, 44, and 45 under 35 U.S.C. 102(e) as being anticipated by Lagace (6,153,666) and submit that the Examiner has used the release paper of Lagace to read on the carrier layer and that this is inconsistent with the invention as claimed, since Lagace does not teach a multi-layer structure, rather a single layer structure which is placed on release paper during production thereof, the release paper subsequently being removed, after the layer has solidified. The Applicants argue that the release paper is simply an intermediate structure used in the preparation of the single layer material and the final product produced by Lagace does not have a multi-layered, rather a single layered structure. Again, the Examiner disagrees. The structure taught by Lagace simply meets the limitations of the claimed invention regardless of whether it is an intermediate structure or a final product.

Hence, the above rejections are maintained.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheeba Ahmed whose telephone number is (571)272-1504. The examiner can normally be reached on Monday-Friday from 6am to 2pm.

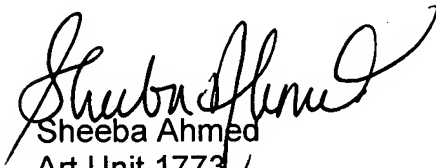
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571)272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Sheeba Ahmed', is written over the printed name.

Sheeba Ahmed

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September 16, 2007